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THE SONG SPARROW IN WESTERN IOWA

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Many members of the Iowa Ornithologists Union who live in the central and eastern parts of the state will probably be surprised to learn that few people in extreme western Iowa know the Song Sparrow as a summer bird. This lovable little sparrow with its sweet, cheerful song is indeed a rare bird along the Missouri area from Sioux City south.

A few years ago we made a mid-summer trip to Des Moines and about the first place we went to look for birds was Waterworks Park. Even before we got into the main gate we heard Song Sparrows warbling and from then on it was a succession of lovely song as we passed the nesting zone of each male sparrow. The singing of this bird was so haunting that we hated to leave to make the return trip to Sioux City.

In going through the writings of the late Dr. T. C. Stephens you will find little evidence that this fine ornithologist even considered the Song Sparrow a summer resident. In his work **The Summer Birds of the Lake Okoboji Region of Iowa** he lists the Song Sparrow as a common nesting bird. What about the gap between this area and Sioux City?

In recent correspondence with Mrs. Phil Thornton of Storm Lake, Iowa, I find that Mrs. Thornton considers the Song Sparrow a reasonably regular summer resident around the lake. This brings the breeding range considerably farther south, but not much more west.

Nearly thirty five years ago when returning from an extended field trip with Dr. Stephens to the Fort Sisseton country of South Dakota, where we were the guests of Professor Wesley F. Kubichek, we came through Le Mars, Plymouth County, Iowa, and I heard a Song Sparrow sing. I told Dr. Stephens, but traffic was heavy and we were tired and didn't stop to run down the songster. It was not until July 26, 1962, while crossing a bridge just north of Le Mars over the Floyd River that I again heard a Song Sparrow sing. This time we stopped as it was early morning and we had all day to waste. The lovely song kept pouring out and we soon located the little brown and black streaked singer and stayed for a long time, just watching and listening to his lay.

On the morning of June 25, 1962, while on another all day field trip we were on the McNally farm near the railroad siding of McNally, Iowa, when we heard a Song Sparrow. This is just over the line in Sioux County, and as we now figure it about seventeen miles northwest of the Song Sparrow record near Le Mars. This record along Indian Creek we considered at the time might be a freak, but with the LeMars record one month later now in hand we think maybe we have a beginning for more records and needless to say more work.

As I go back over nearly forty years of continuous bird records kept in the Sioux City area I find only two other summer records of the Song Sparrow. One was made on August 9, 1955, when I heard a Song Sparrow sing

along a chute running into Mud Lake, Union County, South Dakota. This location is just a few miles from the Iowa boundary and no doubt the sparrow was a summer resident. This particular sparrow was watched and the identity was well established.

The second record is from Brown's Lake, Woodbury County, Iowa, and is a specimen taken on September 8, 1932. The bird a female is in molting plumage with the tail feathers still very short and not even reaching to the end of the wing feathers. I always felt that this bird had been a summer resident in the area, but never did succeed in convincing Dr. Stephens of the idea. His point was well taken for migrating Song Sparrows often start arriving in early September. My record book shows such fall arrival dates, as, September 10, 1929; September 4, 1931; and September 5, 1932.

The problem is then to establish approximate ranges for the Song Sparrow in summer in this part of Iowa. The above records would then tend to show that at least west to Storm Lake the Song Sparrow is a regular summer resident. That this sparrow is a limited summer resident of Plymouth and Sioux Counties north of Sioux City and since it is very common around Lake Okoboji it is probably safe to assume that the Song Sparrow would also summer in Lyon, Osceola, O'Brien and Cherokee Counties. South of Sioux City in the counties bordering the Missouri River the presence of the Song Sparrow as a nesting bird would be considered almost negligible. This could be quite a challenge to the younger bird student to do some intensive field work along the western edge of Iowa to find nesting Song Sparrows. But, the challenge could be even more fulfilled if the said field worker in his search for Song Sparrows stumbled onto some really rare western or southern form of bird life and could add it to the summer birds of Iowa.

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NESTING BLUEBIRDS AT DAVENPORT

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The Eastern Bluebird (*Sialia sialia*) is a beautiful thing to see perched on a wire singing his heart out to his lady fair. Perhaps this is why the Tri-City Bird Club has set nest boxes out in an area northeast of Wildcat Den State Park for the last 4 years. The nest boxes are made of three-quarter inch wood except for the plywood fronts. The boxes are set in suitable locations on roadside fence posts. Wildcat Den is but a short 20 miles for Mary Lou and Peter Petersen, Jr. and me to drive for banding the young bluebirds every eight to fifteen days.

The bluebirds raise two broods with four to six young each, starting about the first of May and ending about the first of August. We feel sure we missed two broods due to the fact that we didn't start checking boxes until May 20.

The young, unlike the brilliantly-colored males and pale blue females, are a spotted, brownish birds with no red breast.

After checking the thirty-six boxes eleven times, we have banded 97 young bluebirds and 6 adult female bluebirds. Along with the bluebirds, we banded 45 House Wrens (*Troglodytes aedon*) and 8 young House Sparrows (*Passer domesticus*).

Last year with only 21 boxes, 19 bluebirds and 60 House Wrens were banded. Banding wasn't begun until the first of June. From these figures it is obvious that the bluebirds are making a tremendous increase in this area.

Through banding we hope to find out whether the young birds raised here come back to nest or whether they go to a different part of the country. Thanks to the Tri-City Bird Club we can further our knowledge about the Eastern Bluebird.

In the pictures we wish to show the size and shape of the boxes used, and to show the difference between the young and adult bluebirds.



BLUEBIRD NEST BOX

Photo by Mike Yeast



ADULT AND IMMATURE BLUEBIRDS

Photos by P. W. Kent

CEDAR FALLS AUDUBON SOCIETY OBSERVES 25TH YEAR

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Twenty-five years of birding and related activities were recalled last May 23 as the Cedar Falls Audubon Society observed its silver anniversary at a potluck honoring charter members, past presidents, and special guests. Using the theme, "Those Wonderful Years", the past history of the society was related.

The identification of a ruby-crowned kinglet at a meeting of the Garden Club in 1937 became the birth of the Cedar Falls Audubon Society. Through the years of friendly gatherings and informal bird-watching, the club expanded in membership and interests. In 1941 a bird sanctuary was created by the Cedar Falls Park Committee and maintained by the Audubon Society. By 1946 the membership had grown to 57 and some of the members led bird hikes for underprivileged children at day camp. The following year the group entertained the I. O. U. and voted to affiliate with it as a supporting member club.

Club programs during the early years were presented largely by the membership and were geared for the most part to talks and discussions about birds. The program topics later expanded to include such things as weather, geology, and forms of animal life other than birds. During the 1948 season the Audubon Screen Tours became a part of the club's functions. The tours continued through 1960. In 1961 when the State College of Iowa decided to purchase the Butler Center Virgin Prairie, the Cedar Falls Audubon Society contributed to the purchase price the profit from the Audubon Screen Tours.

Through the years their field trip schedule broadened to include not only short local trips but also all day trips to various parts of Iowa and an occasional weekend trip such as the ones to Forney Lake to see the goose migration.

More recently the club activities have included a trip to Vinton to teach the children at the Sight-Saving School to recognize bird songs and the presentation of bird feeders to a school for the handicapped in Waterloo. Both these projects were carried out by individual club members.

After the events that are now club history were recalled, the past presidents and charter members were presented with gifts and a special life membership certificate was given to Dr. Martin L. Grant for his years of unflinching service to the club. With pleasant memories of its quarter century of existence, the Cedar Falls Audubon Society began its 26th year with a bright outlook for its future.

TWO CLAM CAVE

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The cliffs forming the valley of North Bear Creek are hidden beneath the innumerable leaves of oak, hickory, and elm. Occasionally the dark green spike of a white pine thrusts through this cloak of green, breaking the rough texture formed by a thousand lesser trees. Beneath this upperstory is the tangled growth of ironwood trees, vines, shrubs, and other plants.

No one really knows how Two Clam Cave got its name. Clams, even if found at the bottom of the creek, seem far removed from this pocket in the rock, concealed by such verdant foliage. And why it should be Two Clam Cave, not Clam Cave, is curious. The name suggests something specific—a local Indian or a particular event. But there is no information about such an Indian or event in the various histories of the area.

The origin of the name remains an enigma, but there is no doubt that Two Clam Cave was used by generations of Indians. The floor of the cave is dry and powdery where hundreds of eager archaeologists, professional and amateur, have sifted for arrowheads, flints, bones, and other artifacts. Few of these have gone away empty-handed; no one has sifted down to sterile soil. Though the easy digging has been lone, the most casual amateur may find a chip of flint, a piece of bone.

Some local archaeologists claim that the Indians used this cave for six to eight hundred years, and it is not difficult to imagine a group of savages sheltered by this cave. The entrance of the cave is promising. It measures 15 feet by 40 feet. But quickly the cave dwindles to a tiny crevice only 30 feet from the entrance. Nevertheless there is room for a dozen men to sleep and cook protected from the rain and their enemies. Particularly when one visits the cave alone, if he pauses from his sifting, can he imagine the grunts and murmurs of savage men bent over their earthen cooking pots. Though the ceiling is not blackened by the smoke of a thousand fires, as the poet might wish, one may imagine it so, and better things besides.

The drafts are not always propitious, and often the cave must have been smoky; surely its occupants must also have been smelly and greasy. These savages of the imagination, as the savages of the past, take little care of their garbage. Bones and scraps decay in the cave where they fall. These men, for they are men, eat at whole pieces of meat with bare hands and dripping maws. One can see in their manner of eating that theirs is a struggle for life, a struggle which keeps them savage. They tear with sharp teeth at shreds and chunks of meat; perhaps they have not eaten for days. Their fare of berries and nuts will sustain them, but fresh meat and fish are invigorating.

Others are working on the flints which modern men seek at their leisure. Frequently a stone is discarded, slung to a corner to be forgotten until a white man resurrects it for his museum tray. Since it is summer the savages are scantily clad in clout and mocassins. Deerskin bags of

fresh game are stored in the cool corners of the cave. Perhaps a squaw works with a sharp piece of bone or stick at an ornamental garment for her mate.

But this dream cannot last. A single car rattling down the nearby road dispels the notion that this cave has not changed substantially for hundreds of years; that the imaginative one can occupy the same space occupied by a savage, look at the same kind of foliage, smell the same earthy smell of vegetation, and glimpse the same kind of blue sky through the trees. Not even the most imaginative can return to the state of the savage. Even he must drive his car home from Two Clam Cave through miles of cultivated land intersected by yellow and black strips of road, and dotted by farm, church spire, and fields of grazing cattle.

BALD EAGLE SURVEY COMPARISON WINTERS 1960-61 AND 1961-62

ELTON FAWKS

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The study of wintering Bald Eagles along the Lock and Dams of the Mississippi River becomes more interesting each year. The writer thanks the many contributors who are co-operating in this survey. Without drawing any conclusions the following comparisons are submitted.

In the Upper Mississippi Valley Fish and Wildlife Refuges organized by Pools the following changes were noted.

Pools 4, 5, and 6—About 25% more eagles counted during the winter 1961-62 than the first winter. The immature ratio dropped from over 37% to 10%.

Pools 7 and 8—A drop in total eagles from 346 sightings to 146 with the percent of immatures dropping from 54 to 42.

Pool 9—A drop in sightings of one-third, with an increase in immatures from 26 to 31%.

Pool 10—Twice the number of sightings but a percentage drop in immatures from 20 to 8.

Pool 11—A similar number of sightings but percentage drop from 32 to 9.

Pool 12, 13 and 14—Double the sightings with ratio very close. No personnel stationed at Savanna after Feb. 11th. Otherwise sightings would be still greater for 1961-62. The Savanna Ordnance Depot carries the greatest number of eagles in February on the refuge.

The totals for the two seasons are as follows:

Winter 1960-61	1124 adults	415 immatures	% 74.70 to 25.30
Winter 1961-62	2018 adults	238 immatures	% 89.50 to 10.50

In both years the sightings doubled in the last half of the season over the first half.

Peak dates for the refuges were as follows: 1961-62 only.

Pools 4, 5 and 6—December 9 through December 31 and March 31 through April 21.

Pools 7 and 8—November 29 through December 8 and April 7 through April 21.

Pool 9—November 28 through December 9 and March 10 through April 7.

Pool 10—December 26 through March 17, numbers of eagles fairly constant.

Pool 11—December 26 through March 24 numbers fairly constant.

Pools 12, 13 and 14—December 30 through January 20, constant with sharp jump at Savanna Ordnance Depot January 27 through last date reported of February 11.

Pool 14 (additional figures, this pool only)—December 6 through February 11, numbers fairly constant.

Pool 15—December 17 through February 9 with a build up in numbers of 50% February 11 through March 10.

Below the Refuge:

Pool 16—December 26 through February 11.

Pool 17—December 31 through March 9.

Pool 18—December 15 through January 22.

Pool 19—December 14 through February 11.

Pool 20—December 14 through December 28 and January 16 through January 22.

Pool 21—December 24 through January 14.

Pool 22—January 16 through February 10.

In the winter of 1960-61 the peak dates for Pools 20, 21 and 22 were the same exact dates except the peak lasted one more day, until February 11 at Pool 22. The last wintering half dates for Pool 20 were also exactly the same both years.

In a few more years some definite conclusions can be drawn so keep sending in the data. All material sent to the writer is sent on to Mr. Alexander Sprunt 4, of the National Audubon Society, who has charge of the eagle study.

Comment: Much of the material was received by "Pools". A better way to locate the eagles would be by Lock and Dam numbers. Some were received that way. The eagles range over the open water above and below the dams. However, the personnel of the Fish and Wildlife Service count by Pools. Either way locates the eagles fairly close and does give year by year comparisons.

All of the eight or nine Bald Eagles turned in to the Bureau of Sport Fisheries and wildlife for examination from areas in the continental United States were found to have D.D.T. in their tissue. Two birds from Alaska were found to be free of D.D.T. It is not known that the D.D.T. present was sufficient to be the cause of death.

Anyone not having reporting forms for eagle data can obtain them from the author. The forms cover the entire winter season. The use of the forms insures the recording of all necessary data.

GENERAL NOTES REPORTS

The closing dates for the several issues of **Iowa Bird Life** do not coincide with the periods of bird activity as we think of it, i.e., spring and fall migration, nesting, and winter residents, so General Notes in this issue is largely news of the migration in the late spring. Reports on the nesting season have been disappointingly few.

Pelicans, Cormorants, Herons. A flock of 25 White Pelicans was observed on May 25 at Lamoni. (DG). There were 10 young Double-crested Cormorants above Lock 13 on June 24, with six or seven active nests. Two young were banded. (PP). Great Blue and Green Herons are usually common around Des Moines, but have been scarce this summer, and there have been few, if any, Black-crowned Night Herons reported. The Yellow-crowned which had nested in Crocker Woods in Des Moines for the past five years could not be found. A group of six Common Egrets was on the Mississippi near Lock 9 on July 29. (FL). Two others were seen July 28 in a gravel pit just north of Bellevue. (MJ).

Ducks. A pair of Green-winged Teal was seen on June 9, and a male on July 3 at Brenton's Slough near Des Moines. This has not been considered a nesting species in Iowa for some years. Two Ruddy and two Ring-necked Ducks were at Cardinal Marsh on June 9, a late date. (FL).

Hawks. A Swainson's was watched for 30 minutes at Waterloo on May 30. (RH). and one was also seen at Goose Lake, near Cedar Falls, May 26. (PP.) All species of hawks have been scarce around Des Moines, especially Red-shouldered, Marsh and Sparrow, all of which used to be considered common.

Shorebirds. Upland Plovers were present in usual numbers at Lamoni. (DG). Three were at Cardinal March on July 19, (FL), and two were seen north of Montpelier on June 8. (PP). A Woodcock was seen at Rowan by the Jacksons, and Russell Hays had three observations of this rather unusual species. A Willet was at Cardinal Marsh on June 2, and a nest of the Common Gallinule with 12 eggs was found in the same place on June 16 and photographed. (FL). Three Solitary Sandpipers on July 12 at Decorah were rather early. (FL). Two Avocets were seen at Dunbar Slough near Jefferson on April 21. (BF).

Doves, Cuckoos. There have been many Mourning Doves in and around Des Moines, and Yellow-billed Cuckoos have been more numerous than usual. A late Yellow-billed Cuckoo nest containing two half grown young was found near the Waterloo Airport on August 6 by Lewis Blevins. (PP).

Owls. A Barn Owl with a broken wing was found April 11 near Goldfield. The bird had evidently been in a collision and died two days later. (N,DJ).

Nighthawks. These were reported by Ann Moore of Moulton as being seen on March 12, 18, and 25, which are extraordinarily early dates for this part of the country.

Woodpeckers. Pileateds are reported as common in the secluded areas near Decorah. (FL). Redheaded Woodpeckers have been unusually numerous this summer in Des Moines.

Flycatchers. A number of pairs of Say's Phoebes were found nesting near Sioux City by William Youngworth.

Creepers, Wrens. A Brown Creeper was found in Cedar Falls on July 17, by Mary Lou Petersen. Carolina Wrens, which had been established in Des Moines for eight years, were evidently starved by last winter's heavy snow.

Thrushes. Two singing Veeries were found June 7. (PP). A check of 36 nesting boxes between Blue Grass and Wildcat Den State Park showed 23 to be occupied by Eastern Bluebirds of which six adults and 97 young were banded (see article). (PP). Two of five houses near Northwood were occupied by bluebirds with Tree Swallows taking over the others. (FO). Bluebirds are "common" at Decorah. (FL).

Vireos, Warblers. A singing White-eyed Vireo was watched for ten or fifteen minutes on May 12 at Iowa City. (BF). Many warblers, including a Connecticut (in Cedar Falls) and a young Blue-winged almost able to fly were banded this past spring by Peter Petersen, Jr.

Tanagers, Grosbeaks. Summer Tanagers are reported from the Davenport area, but not seen after June 1. (PP), and there was an active nest in Jester State Park near Des Moines with other probable nesters in the city. Two Blue Grosbeaks were reported as being at Rowan on May 17. (N,DJ), and a flock of 16 at Northwood on May 20. (FO). Contributors: Bob Faaborg, Donald Gillaspey, Russell Hays, Nancy and Dick Jackson, Myrle Jones, Fred Leshner, Mrs. Fred Oetken, Peter Petersen, Jr., WOODWARD H. BROWN, 4815 Ingersoll Ave., Des Moines 12, Iowa.

Parental Care by a Barred Owl. One morning in May, 1960, Dr. Robert Norton and I were in an area in Waterworks Park, Des Moines, where Barred Owls had frequently been seen. At the base of a very large cottonwood we found a downy Barred Owl. It had evidently fallen from the nest and sustained an injury to the nervous system, as it twitched convulsively as it lay on the ground. It seemed past help and we did not disturb it. The next morning we revisited the place, and on the ground beside the owl, which was by this time dead, were a Downy Woodpecker, a Ruby-crowned Kinglet, and an Eastern Bluebird, which had presumably been brought by the parents to feed the young owl. The following morning all four birds were gone. WOODWARD H. BROWN, 4815 Ingersoll Ave., Des Moines.

Both Pipits at Waterloo. Six members of the Waterloo Audubon Society saw two Sprague's Pipits and one American Pipit on farm land north of La Porte City, Iowa, on May 27, 1962.



AVOCET

Photo by F. W. Kent

The Sprague's Pipits were feeding on sandy soil, bare except for scattered plants. Their light brown color blended well with the sandy background, making them difficult to see, easy to lose sight of, and easier to overlook entirely. That they were observing us seemed apparent for they sought to hide by squatting or crouching on the sand, facing us and mimicing the appearance of small stones. They remained motionless for some time, then ran, usually at right angles to our line of vision, and again crouched.

When they were moving we saw the general diagnostic characteristics; the light brown streaked plumage, the thin bill, the white outer tail feathers, and the yellowish legs.

The American Pipit was seen along the grassy fence line. When disturbed it flew in a sparrowlike manner along the grassway trying to conceal itself. On the nearby dusty roadbed where it had walked was a trail of its characteristics footprints. DR. MYRLE BURK, R. R. #2, Waterloo.

Effect of a Ten Inch Rainstorm on Bird Life. The following notes are from a letter written to Dr. Mary Price Roberts and forwarded to the editor. "We are just trying to recover from our 4th of July flood, having had ten inches of rain between one and four o'clock the morning of the 4th. Pearl Osher and I are going out this P.M. (July 5) to survey the damage to the birds. I doubt if any young survived—didn't see any young ducks or pheasants yesterday and they have been more plentiful than for many years. The lawns are covered with dead birds."

"Our birding trip today (written in P.M.) was very depressing—the last time out we saw many ducks with young as well as American Coots, grebes,

and tern young. Today we saw exactly four ducks, no young ones, and just one young American Coot. The storm has taken a terrific toll of nests and young. The older ducks must be somewhere but have deserted their nesting areas. We did see two young bluebirds." HELEN LADOUX, Route No. 3, Spirit Lake, Iowa.

BOOK REVIEWS

The Kirtland's Warbler—Harold Mayfield—242 p., illustrated—Published by Cranbrook Institute of Science, Bulletin 40, Bloomfield Hills, Michigan. 1960—\$6.00.

This fine book is the result of many years of careful observation and study by many individuals. Among these individuals was the late Josselyn Van Tyne, to whom Harold Mayfield pays special tribute in his preface. It was Van Tyne who in 1930 paid a visit to the nesting ground of the Kirtland's Warbler, and who subsequently began a life history study of the species. Following Van Tyne's death on January 30, 1957, Harold Mayfield began to assemble all the available data on the Kirtland's Warbler, which included records contributed by many observers. However, as the publisher's preface points out, Van Tyne and Mayfield were collaborators in this study and it was Mayfield's labor of love which finally brought the book into being.

The weekend bird-watcher with an average interest in birds will find the first thirteen chapters of major interest. Chapter one, an introduction to the book, offers tentative answers to the question we all ask, "Why is the Kirtland's Warbler so rare?" The Kirtland's Warbler is a relic species possibly much more abundant a few thousand years ago when the stands of jack pine necessary to fulfill the specialized nesting requirements of the warbler were available south of the tree's present range. This specialized nesting requirement together with the nonnomadic character of the bird have prevented the bird from reaching a large population. Since 1895 a new factor has contributed to the dwindling number of birds. This factor is the Brown-headed Cowbird, not present in the breeding grounds of the Kirtland's Warbler until logging cleared the forests up to the breeding area of the Kirtland's Warbler. The parasitic Cowbird has taken and continues to take a heavy toll of the reproductive potential of the warbler. Because of this relationship so vital to the Kirtland's Warbler, Mayfield has devoted an entire chapter to a study of the cowbird.

The Kirtland's Warbler became known to science on May 13, 1851, when the first description of a male was published. Ironically, another specimen lay in a museum drawer for ten years previous to the year of the article. The nesting ground was discovered in 1903 by two fishermen who brought a specimen to Norman A. Wood. Wood's account of the discovery of the first nest provides an inspiring model of patient and meticulous bird study.

Surprisingly little is known of the wintering ground, discovered in the Bahamas in 1879. This limited area plus the fact that the islands lie within

the path of seasonal hurricanes may contribute to the low population of the bird. Apparently it has been forty years since the last specimen was taken in the Bahamas, and during that same time there has been only one reliable sight record of the bird in its wintering ground.

The nesting grounds are found in only twelve counties of northern lower Michigan. There the crucial nesting requirements appears to be the presence of living jack pine branch thickets near the ground. These twelve counties of Michigan include but a small part of the jack pine range in Michigan. Mayfield suggests that the Kirtland's Warbler is restricted to this part of the range of the jack pine by a combination of three factors: (1) porous soils, (2) ample ground cover, and (3) unimpeded sweep of forest fires.

Within the breeding range of the Kirtland's Warbler the birds are distributed in very loosely arranged colonies. The average area of a sample of twelve individual nesting territories was 8.4 acres, about twice the size of the territory reported for any other North American warbler. Freedom from predators seems to bring the warblers into such loosely knit groups, and food availability is only a minor factor in determining the breeding ground. During late May or early June the female selects a nesting site on the ground. Once started, nest building takes the female about four days; the male does not participate in this activity. The average date for completion of the first set of approximately five eggs is June 4.

Though it is debatable just when true incubation begins, Mayfield believes that it begins on the day before the laying of the last egg and lasts approximately 14 days. Just as the female is most active in selecting a nest site and building the nest she also does the incubating and brooding. Both parent birds participate in feeding the young.

Mayfield has carefully noted the cohesiveness of the family after the fledglings have left the nest. Each parent assumes care for part of the brood, and that part of the family may be seen as a unit which moves with its parent leader. By the third week out of the nest, the young are able to gather most of their own food, but the adults continue to feed them.

The Kirtland's Warbler is unusually tame in the presence of a human, but this varies with individual birds. It is, except for the singing male, a silent bird. This quality allows the warbler to go about its business unobtrusively even in the presence of human intruders. The song of the male is not remarkable for its beauty, but it is described as "bright" or "peppy". Mayfield paraphrases the song thus: "ch-ch-chattanooga-choo-choo". Figure 9 provides an audiospectrographic analysis of the song and a comparison of the song with those of other species.

In chapter 6, "Miscellaneous Notes on Behaviour", Mayfield notes the tail "wagging" habit of the Kirtland's Warbler. He concludes: "It is reasonable to suppose that this tail movement serves as a recognition signal of particular value to birds that see one another frequently through narrow, horizontal vistas." Though this is a minor point in a study such as this, it seems to me that such an assertion ought at least to give reference to studies which seek to substantiate this conclusion. As Mayfield points out, this mannerism is also characteristic of the Prairie and Palm warblers which are found in semi-open areas having "narrow, horizontal vistas". However, this mannerism is not confined to these species alone, and specialized use of the habit by these three species deserves careful study.

Chapter 14, "The Cowbird", is a close analysis of the complex and vital relationship between the Brown-headed Cowbird and the Kirtland's Warbler. Unlike other host birds the Kirtland's Warbler has developed no derense against the parasite. Consequently, 75 of 137 nests (or 55% of a sample) were parasitized. Though a few other species of birds are subjected to comparable high rates of parasitism in given areas, this percentage represents an extraordinary pressure on the Kirtland's Warbler. While the Red-eyed Vireo is heavily parasitized, its breeding range extends beyond that of the cowbird. The Song Sparrow is also parasitized, but it commonly produces several broods a year. The Kirtland's Warbler has neither of these advantages which mitigate the circumstance of a high rate of parasitism. Allowing for nest failure due to causes other than the cowbird, and comparing the success of parasitized nests with that of unmolested nests, Mayfield concludes that the Kirtland's Warbler would produce 60% more fledglings if there were no cowbird interference.

Chapter 15, "Reproduction and Mortality", discusses nest destruction by various predators, then analyzes nest success in the Kirtland's Warbler. Again, the principal villain in the ability of the Kirtland's Warbler to reproduce its species is the cowbird. The present production of fledglings per pair of Kirtland's Warblers is 1.4. Without cowbird parasitism, the Kirtland's Warbler has a low yield. Turning to survival rates of young Kirtland's Warblers necessary if the species is to maintain its population, Mayfield calculates that 57% of the young survive until the June following the year of their birth. "This survival rate for songbirds in their first year of life is almost unbelievably high. If my calculation is applicable to the entire population, there may be serious doubts whether the Kirtland's Warbler is holding its own."

This book is a highly successful effort at a quantitative study of a species; that is, it offers conclusions based on observed facts and statistically normalized data. The reader puts down the book with a feeling of respect for the painstaking care with which it was written. One should read this book once in order to discover what real fieldwork and research are. Then the book may be kept as a reference, a key to research done on many other birds, particularly the Brown-headed Cowbird. The bibliography provides easy access to works which in turn may lead to desired information. The charts and tables throughout the book are excellent, with the exception of Figure 7 on page 55, which is objectionable only for its small size. The book is at times a bit dry, but this is to be expected in a work of this nature. Facts and figures have a way of ignoring the reader, but Harold Mayfield has aided the reader with a clear opening sentence to almost every chapter and section. Another excellent feature of assistance to the reader is the summary at the end of each chapter.

Handbook of North American Birds, Vol. 1, Loons through Flamingos—edited by Ralph S. Palmer (Yale University Press, New Haven, Connecticut, 1962; 8vo size, pp. i-v + 1-567, with color chart, 6 colored plates, and numerous range maps—\$15.00)

This, the first volume of a six-volume work on North American birds, is one of the most important and pretentious publications in our generation. It may not appeal to the bird lover or bird watcher who is only in his ele-

mentary studies, but for the serious student it will be a basic tool which he will make great use of in all future work. The old Elliott Coues two-volume book which went out of print in about 1930 had somewhat the same purpose and was consulted by ornithologists for more than 50 years. The new work, monumental in size and scope and prepared by a group of recognized ornithologists, will attempt to summarize the existing knowledge of birds in all its ramifications. It will be our standard reference work for many future years.

Volume 1, just published in May, covers the orders of water birds from Loons through Flamingos, in the A.O.U. sequence. Each species is described quite fully as to plumage stages and physical and geographical variations. Hybrids and subspecies are included. Points for identification in the field are listed and description of voice, whether rudimentary notes or full song, will have adequate coverage. Most useful is the careful listing of habitat types and vegetation conditions where different species are to be found, as well as general outlines of distribution on a continental basis.

Migration for each species is described, population estimates are given, there is a paragraph on reproduction, one on habits, one on food. On the subject of nesting, there is information on nest construction, the laying season, the number and size of eggs, and incubation duration. A new feature is the "Banding Status" for each species. This gives the number of birds banded through 1957, the number of recoveries and returns, and the localities where most of the banding was done.

Range maps for most of the birds provide geographic information on such matters as: Regular breeding, recorded breeding colonies, breeding and wintering areas, post-breeding dispersal, stragglers, approximately boundary of subspecies' breeding range.

Territorial and behavior studies not found in older books point up the progress made in ornithology in fairly recent years.

A fine feature is a color chart, which is probably the most complete attempt to delineate colors since Ridgway's famous book (now very scarce) of 1912. There are 48 specially mounted color samples on a double plate. This is dated 1956 and gives a hint as to how long the book has been in preparation.

The physical make-up of the book is very satisfactory, and of the quality that one expects in a book of this price. It is well printed with modern type faces on a good grade of paper; binding is library buckram with gold lettering.

The publishers do not state when further volumes may be expected. Serious bird students will await their appearance with due impatience.—Fred J. Pierce.

American Wildlife and Plants—A Guide to Wildlife Food Habits—Alexander C. Martin, Herbert Zim, and Arnold L. Nelson—500 p., illustrated—Published by Dover Publications, Inc., New York, 1961—\$2.00.

This excellent reprint of one of the best standard reference works on the plant foods of wildlife is quite welcome to any serious student not possessing the original, now out of print. Plants provide the bulk of the diet for many of the birds and animals of America. This book gives the breeding and wintering ranges on maps, shows the animal—plant food ratios in easily read diagrams, provides black and white sketches of many forms, and lists specific types of plants and animals used for food. The approximate percentage of use for each plant is indicated through the use of a simple star system. The last half of the book lists the plants with birds and animals that use them for food.

The introductory section discusses the importance of plants to wildlife, the portion of the plants utilized, farm crops and wildlife, and gives an excellent background in wildlife food-habits studies. It also gives full details for proper interpretation of the data.

The only weak point obvious to the reviewer was the failure to list the birds in proper taxonomic order. The order is correct within the families, but these are improperly arranged. It is not too difficult to follow the arrangement, but proper checklist order would simplify matters. Any wildlife student with an interest in the specific food of birds and animals will find this book an indispensable tool. ed.

Birds and Their Attributes—Glover Morrill Allen—338p., illustrated—Published by Dover Publications Inc., New York, 1962—\$1.85.

A reprinting of one of the better general texts serving as a general introduction to birds. Allen emphasizes structure, physiology, habits, and behavior. The first chapter covers relationships between birds and man as well as the beginnings of ornithology as a scientific study. The book then covers physiology in terms of feathers and plumage, coloration, and skeletal structure. Allen follows with food habits, evolutionary origin, distribution, breeding habits, parasitic behavior, sense, general behavior, flight, song, resting habits, migration, and location sense. The book closes with a very fine introduction to the usually poorly understood subject (by the amateur), of classification and nomenclature.

Since the original writing was done in 1925 many new facts have been uncovered concerning ornithology. For example, Allen states (p.29) that there are very nearly 19,000 kinds of birds, presumably meaning species. Van Tyne and Berger in **The Fundamentals of Ornithology** recognize only 8,600 species of birds in the world. The section on migration could be revised utilizing the data recently brought to light through radar observations and banding. The book is a very worthwhile general introduction, although this reviewer prefers Hann's more recent **The Biology of Birds**. ed.

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The membership list has not been printed since March, 1960. Any errors noted should be brought to the attention of the editor as soon as possible.

INLAND BIRD BANDING ASSOCIATION MEETING

The Inland Bird Banding Association will hold its annual conference in Omaha, Nebraska, November 3-4, 1962, at the Gene Eppley Library, University of Omaha. Host groups are the Omaha Bird Club and the University of Omaha.

Elmwood Park borders the campus to provide ample birding area within walking distance. Meals will be served on the campus at cost. Many motels and hotels are within a few blocks of the meeting place. The lovely new library building is well equipped with projection booth and sound equipment. A lounge across the hall from the auditorium will be available and coffee will be served there. The program is being planned to be of interest to all those interested in ornithology.

Iowa Ornithologists' Union members are invited to attend the I. B. B. A. Conference in Omaha. For further information and reservations contact Mrs. John Lueshen Wisner, Nebraska, general chairman.

The response to our appeals for records and observations for the **General Notes Report** section has been less than satisfactory. This section cannot give a good picture of the unusual observations, unseasonal occurrences, and changes in the abundance for the state unless more members contribute data. Even if you make only one observation of something you consider of sufficient interest to appear in print do not hesitate to notify Mr. Woodward Brown, 4815 Ingersoll Ave., Des Moines. Such items as, for example, Chimney Swifts were extremely abundant in your vicinity, would be worth mentioning. Any change in status of a species so noticeable that it stands out in your mind is worthy of reporting. In addition to the above mentioned items do not fail to relay any data concerning T. V. tower kills, the effect of severe weather, unusual nesting circumstances, (including early or late dates and abnormal locations), extreme plumage characters and abnormalities (such as albanism and melanism), and finally effects of civilization (for instance housing developments, spraying and farming practices) on the bird populations.

An easy way for many of our members to contribute data is through the various local bird clubs. One person could assume the responsibility for recording the type of data mentioned above at the meetings and collecting notes from other local members, then forwarding this material to Mr. Brown. It would doubtless be of great help to Mr. Brown if data were grouped by families in the manner of the headings in his reports. In general, reports should be in his hands by the first of the month prior to the month of publication. This would be February 1, May 1, August 1, and November 1. Mr. Brown has done an excellent job organizing the material he has received and cannot be given too much credit for everything he has done to assist the editor.

There is a need for good manuscript, typed, double spaced, and pertinent to Iowa birds. Any copy, with or without accompanying illustrations, should be sent to the editor at 2736 East High Street, Davenport, ed.

CHRISTMAS BIRD CENSUS

The Christmas Bird Census in Iowa will include any count taken between December 22, 1962, and January 1, 1963. The census will be compiled by Mr. Woodward Brown, 4815 Ingersoll Ave., Des Moines. He will send a reporting blank to everyone who compiled a census last year. If you are taking a census for the first time please notify Mr. Brown several weeks prior to the census period stated above. Please attempt to avoid any overlapping of an established census area. Reports not on blanks will be accepted if they follow closely the pattern of previous printed reports (see prior March issues). Dead line for sending reports to Mr. Brown is January 15, 1963. Reports received after this date will not be published. Dead and captive birds should not be reported. Details of unusual observations including observer, circumstances, and characteristics observed should accompany reports. All reports should be typed, double spaced.

The following is an outline designed to assist members who are covering a new census territory or those who desire to improve their coverage of an established count. In a count involving a large number of observers, many of which are less experienced field students, the validity is of extreme importance and should be ruled on as soon after the count as possible.

I Choice of Area.

- A. Check for over-lap.
 - 1. Other state counts
 - 2. **Audubon Field Notes** counts.
- B. Choose a varied territory.

II Planning Field Work.

- A. Check **A.F.N.** for rules and observe them.
- B. Choose your date.
 - 1. allow an alternate.
 - 2. fit group preference.
- C. Map area and divide if possible.
 - 1. have a competent leader for each group.
 - 2. divide habitats.
- D. Accurate weather data and mileage.
- E. Feeders—cover well and avoid overlap on individual count.

III Compilation.

- A. Evening meeting or supper.
- B. Validity Committee.

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The Iowa Ornithologists' Union was organized at Ames, Iowa, February 28, 1923, for the study and protection of native birds and to promote fraternal relations among Iowa bird students.

The central design of the Union's official seal is the Eastern Goldfinch, designated State Bird of Iowa in 1933.

Publications of the Union: Mimeographed letters, 1923-1928; "The Bulletin," 1929-1930; "Iowa Bird Life," beginning 1931.

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